

## CLAIMS

What is claimed is:

1. A method for producing an output report comprising:
  - 5 identifying a page template indicative of an output report having passive content, the passive content being static;  
parsing tokens from the page template, the tokens indicative of dynamic content, the dynamic content adapted to provide at least a portion of the output report;  
for each token, generating the dynamic content, generating further comprising  
10 fetching output data and processing display data, the output data operable to be retrieved from a dynamic repository and display data operable to indicate organization of the fetched output data; and  
building the output report by assembling the generated dynamic content for each token in the page template.
- 15 2. The method of claim 1 further comprising receiving a user request for HTML page, wherein building further comprises rendering the HTML page responsive to the user request.
- 20 3. The method of claim 1 wherein the dynamic content further comprises java server pages referencing metalanguage representations of at least portions of other java server pages corresponding to the same rendered output report.
- 25 4. The method of claim 1 wherein producing the output report further comprises receiving an HTTP request on behalf of a user, the HTTP request indicative of an HTML response;  
determining the page template corresponding to the requested HTML response;  
generating, in a rendering engine, a JSP output page from the identified page template; and  
30 transmitting the generated JSP output page to the user as an HTML page.

5. The method of claim 1 wherein the display data is formatted according to a predetermined syntax, the predetermined syntax operable for parsing and verification of the display data.

5 6. The method of claim 5 wherein the predetermined syntax is a different syntax than the template and generating further comprises interpreting the display data from the predetermined syntax into the syntax defining the template.

7. The method of claim 5 where the predetermined syntax includes syntactical  
10 elements, and is further operable for nesting the syntactical elements, the nested syntactical elements defining a hierarchical structure.

8. The method of claim 5 wherein the dynamic content is active content and the predetermined syntax conforms to XML, in which the syntactical elements further  
15 comprise XML tags.

9. The method of claim 8 wherein the predetermined syntax is a page descriptor syntax defined by an XML schema.

20 10. The method of claim 1 wherein the tokens are metadata tokens, further comprising:

parsing the metadata tokens from the page template, each of the metadata tokens indicative of dynamic content;

25 retrieving, from a metadata repository, metadata components corresponding to the metadata tokens and operable to provide the dynamic content corresponding to the parsed metadata token;

retrieving, based on the metadata components, the display data and the output data from a repository, the display data and output data corresponding to the dynamic content for rendering on the output report;

30 processing the metadata components using the retrieved display data and output data to generate the dynamic content corresponding to the parsed metadata token; and

inserting the dynamic content in the output report by replacing the metadata token.

11. The method of claim 10 wherein the metadata components further comprise page  
5 descriptors, the page descriptors conforming to a declarative syntax and indicative of the dynamic content.

12. The method of claim 10 wherein parsing further comprises identifying a javabeen  
component operable to process the metadata token,  
10 retrieving the metadata component by the javabeen component; and  
processing the metadata component by the javabeen component.

13. The method of claim 12 wherein the metadata components are XML files  
including at least one page descriptor according to the predetermined syntax, and  
15 processing further comprises retrieving the page descriptors by the javabeen components  
and producing HTML code corresponding to the page descriptors.

14. The method of claim 1 wherein the display data further comprises user specific  
views, the user specific views indicative of formatting and display preference specific to  
20 a particular user and operable for interpretation by syntax processing components to  
render the display data according to the user specific view.

15. A data processing device for producing an output report comprising:  
a web server operable to identify a page template indicative of an output report  
25 having passive content, the passive content being static;  
a parser operable to parse tokens from the page template, the tokens indicative of  
dynamic content, the dynamic content adapted to provide at least a portion of the output  
report;  
a syntax processor operable to, for each token, generate the dynamic content,  
30 generating further comprising fetching output data and processing display data, the output

data operable to be retrieved from a dynamic repository and display data operable to indicate organization of the fetched output data; and

a formatter operable to build the output report by assembling the generated dynamic content for each token in the page template.

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16. The data processing device of claim 15 wherein the web server further comprises an interface operable to receive a user request for HTML page, wherein building further comprises rendering the HTML page responsive to the user request.

10 17. The data processing device of claim 15 wherein the dynamic content further comprises java server pages referencing metalanguage representations of at least portions of other java server pages corresponding to the same rendered output report.

15 18. The data processing device of claim 1 wherein the rendering engine is further operable to produce the output report by:

receiving an HTTP request on behalf of a user, the HTTP request indicative of an HTML response;

determining the page template corresponding to the requested HTML response;

generating, in a rendering engine, a JSP output page from the identified page

20 template; and

transmitting the generated JSP output page to the user as an HTML page.

19. The data processing device of claim 15 wherein the syntax processor is further operable to process display data formatted according to a predetermined syntax, the  
25 predetermined syntax operable for parsing and verification of the display data.

20. The data processing device of claim 19 wherein the predetermined syntax is a different syntax than the template and generating further comprises interpreting the display data from the predetermined syntax into the syntax defining the template.

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21. The data processing device of claim 19 where the predetermined syntax includes syntactical elements, and is further operable for nesting the syntactical elements, the nested syntactical elements defining a hierarchical structure.

5 22. The data processing device of claim 15 wherein the dynamic content is active content and the predetermined syntax conforms to XML, in which the syntactical elements further comprise XML tags.

23. The data processing device of claim 15 wherein the predetermined syntax is a  
10 page descriptor syntax defined by an XML schema.

24. The data processing device of claim 15 wherein the parser is further operable to parse metadata tokens from the page template, each of the metadata tokens indicative of dynamic content, and the syntax processor is operable to retrieve, from a metadata  
15 repository, metadata components corresponding to the metadata tokens and operable to provide the dynamic content corresponding to the parsed metadata token, the syntax processor further operable to:

retrieve, based on the metadata components, the display data and the output data from a repository, the display data and output data corresponding to the dynamic content  
20 for rendering on the output report;

process the metadata components using the retrieved display data and output data to generate the dynamic content corresponding to the parsed metadata token; and

insert the dynamic content in the output report by replacing the metadata token.

25 25. The data processing device of claim 15 wherein the metadata components further comprise page descriptors, the page descriptors conforming to a declarative syntax and indicative of the dynamic content.

26. The data processing device of claim 15 wherein the parser is further operable to  
30 identifying a javabeen component operable to process the metadata token, and the syntax

processor is operable to invoke a javabeen component for retrieving and processing the metadata component.

27. The data processing device of claim 26 wherein the metadata components are  
5 XML files including at least one page descriptor according to the predetermined syntax, and the syntax processor is further operable to retrieving the page descriptors via the javabeen components and produce HTML code corresponding to the page descriptors.

28. The data processing device of claim 15 wherein the display data further  
10 comprises user specific views, the user specific views indicative of formatting and display preference specific to a particular user and operable for interpretation by syntax processing components to render the display data according to the user specific view.

29. A computer program product having a computer readable medium operable to  
15 store computer program logic embodied in computer program code encoded thereon for producing an output report comprising:

computer program code for identifying a page template indicative of an output report having passive content, the passive content being static;

20 computer program code for parsing tokens from the page template, the tokens indicative of dynamic content, the dynamic content adapted to provide at least a portion of the output report;

computer program code operable for generating, for each parsed token, the dynamic content, generating further comprising fetching output data and processing display data, the output data operable to be retrieved from a dynamic repository and  
25 display data operable to indicate organization of the fetched output data; and

computer program code for building the output report by assembling the generated dynamic content for each token in the page template.

30. A computer data signal having program code for producing an output report  
30 comprising:

program code for identifying a page template indicative of an output report having passive content, the passive content being static;

program code for parsing tokens from the page template, the tokens indicative of dynamic content, the dynamic content adapted to provide at least a portion of the output  
5 report;

program code for generating, for each token, the dynamic content, generating further comprising fetching output data and processing display data, the output data operable to be retrieved from a dynamic repository and display data operable to indicate organization of the fetched output data; and

10 program code for building the output report by assembling the generated dynamic content for each token in the page template.

31. An information processing device for producing an output report comprising:

means for identifying a page template indicative of an output report having  
15 passive content, the passive content being static;

means for parsing tokens from the page template, the tokens indicative of dynamic content, the dynamic content adapted to provide at least a portion of the output report;

means for generating, for each token, the dynamic content, generating further  
20 comprising fetching output data and processing display data, the output data operable to be retrieved from a dynamic repository and display data operable to indicate organization of the fetched output data; and

means for building the output report by assembling the generated dynamic content for each token in the page template.